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22   UNITED STATES DISTRICT COURT

23   NORTHERN DISTRICT OF CALIFORNIA

24   SAN FRANCISCO DIVISION

25 ORACLE AMERICA, INC.,   Case No. CV 10-03561 WHA

                   Plaintiff,
26   **ORACLE'S SUPP. OPP. TO GOOGLE'S**
        v.   **MOTION TO EXCLUDE TESTIMONY**
27   **OF DR. KEMERER PER ECF NO. 1729**
    GOOGLE INC.,
28   Dept.: Courtroom 8, 19th Floor
                   Defendant.   Judge: Honorable William Alsup

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                                             EXCLUDE TEST. OF DR. KEMERER
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INTRODUCTION

The entire basis of Google's original motion was that Oracle's fair use and damages expert, Dr. Kemerer, was purportedly incapable of understanding the methodology he himself designed and directed his support staff to implement. Now that Google has conducted a full 7-hour deposition of Dr. Kemerer's research assistant, Rohit Chatterjee, Google agrees that the work Mr. Chatterjee performed in support of Dr. Kemerer's stability analysis is not expert opinion, but was "nothing more than a simple counting of changes" in the API method declarations between versions of the Java SE platform. ECF 1770 (Google's Supp. Br.) 6-7. And Google agrees that Mr. Chatterjee's support of Dr. Kemerer's centrality analysis was to "simply implement[] 'default' settings for the Understand program," *id.* at 3, settings that Dr. Kemerer chose after he reviewed Understand's documentation and the recommended settings, *id.* at 5. Indeed, after deposing Mr. Chatterjee for an entire day, Google cannot identify a single decision Mr. Chatterjee made regarding methodology. Far from "spoon-fed," Dr. Kemerer told Mr. Chatterjee exactly what data he wanted to conduct his analyses, and Mr. Chatterjee provided exactly what Dr. Kemerer asked for.

Now that Mr. Chatterjee's deposition answered the concerns in Google's original motion, Google abandons its original argument that Dr. Kemerer's centrality and stability analyses were "unreliable testimony that merely parrots the opinions of undisclosed witnesses," ECF 1557 (Op. Br.) 1. Google now argues the opposite position: that Dr. Kemerer's testimony should be excluded because *Mr. Chatterjee* did not design Dr. Kemerer's methodologies and because Mr. Chatterjee *did not* conduct the analyses in Dr. Kemerer's reports. ECF 1770 at 2 ("Mr. Chatterjee *did not* even consider whether the data showed that Android APIs were backwards-compatible and thus 'stable.'"), *id.* at 6 (complaining that *Mr. Chatterjee* did not challenge Dr. Kemerer's decision to "consider[] 'only Java material from the [Android] source code."), *id.* (complaining that Mr. Chatterjee had not "performed any investigation to see whether the changes measured [by Dr. Kemerer's methodology] would cause an app to no longer work" and that *Mr. Chatterjee* lacked "expertise in deciding what sorts of changes would matter to app developers."). In all of this, Google still cannot identify a single error in Mr. Chatterjee's execution of the data collection activities requested by Dr. Kemerer.

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1   Further, Google raises entirely new arguments in its sur-reply that it did not raise in its

2   opening brief. For instance, Google argues that Dr. Kemerer should have used the Javadoc tool

3   (part of the Java platform) to collect information about Java *and* Android. ECF 1770 4-5. Dr.

4   Kemerer's use of Javadoc was fully disclosed in his opening report. ECF 1560-10 (Kemerer Op.

5   Rpt.) ¶ 96-100. Google's expert did not take issue with it and Google could have made this ar-

6   gument in its opening brief but did not do so. Likewise, Google argues that Dr. Kemerer's analy-

7   sis should have taken some unidentified, alternative approach to account for backward compati-

8   bility—a topic discussed extensively at Dr. Kemerer's deposition, and also an argument Google

9   could have made in its opening brief but did not. The Court should not countenance Google's

10   eleventh-hour attempt to expand the scope of its motion, through bare attorney argument, less

11   than a week before trial starts.[1] With Google's concerns answered by Mr. Chatterjee's deposi-

12   tion, Google turns to new arguments it could have raised 6 weeks ago on the motion *in limine*

13   deadline and which its expert could have addressed months earlier. *See* ECF 1488 (setting MIL

14   deadline on March 23, 2016). Google's motion should be denied. *Sarkisov v. StoneMor Part-*

15   *ners, L.P.*, No. C 13–04834 WHA, 2014 WL 1340762, at *5 (N.D. Cal. Apr. 3, 2014) (raising

16   argument for first time on reply is "sandbagging by defendants … [and] should have been ad-

17   dressed in opening papers.").

18   **I.   GOOGLE DOES NOT CONTEST THE VALIDITY OF THE DATA
             COLLECTION ACTIVITIES**

19

20   Google has never claimed that Dr. Kemerer's data collection activities were flawed. In-

21   stead, Google disagrees with Dr. Kemerer's ultimate opinions: "But the ultimate opinions that we

22   see offered by Dr. Kemerer in this case, we don't agree with, especially because there are other

23   issues, including backward compatibility, that render their arguments null, in our view, but that's

24   a whole []other thing." 4/20/16 Hr'g Tr. 129:21-25. These other issues, such as how the method-

25   ology accounted for backward compatibility, go to weight, not reliability. Google may explore

26   _____

27   [1] Google also seems to argue that because Dr. Kemerer worked with Mr. Chatterjee for the first
       time on this case, and because Mr. Chatterjee's firm assisted other experts, Dr. Kemerer's analy-
       sis should be excluded. Google's argument says nothing about the reliability of Dr. Kemerer's

28   methodology, and is irrelevant to admissibility.

1   these issues on cross examination, but they are not grounds to exclude Dr. Kemerer's testimony.

2   *Pyramid Techs., Inc. v. Hartford Cas. Ins. Co.*, 752 F.3d 807, 813 (9th Cir. 2014) ("The judge is

3   supposed to screen the jury from unreliable nonsense opinions, but not exclude opinions merely

4   because they are impeachable. Simply put, the district court is not tasked with deciding whether

5   the expert is right or wrong, just whether his testimony has substance such that it would be help-

6   ful to a jury." (internal quotes and citations omitted)).

7   **A.   Google Does not Contest the Stability Analysis Data Collection**

8   First, Google points out that Dr. Kemerer's stability analysis considered packages beyond

9   the 166 packages in Java SE 5. ECF 1770 at 4. But the point of the analysis is to compare

10   changes in API packages across versions of each platform. As Dr. Kemerer explained in his re-

11   port, the stability analysis considered the "complete specification of the packages, classes, and

12   methods contained in both Java and Android's development kits" from "each version of the JDK

13   between 1.0.2 and 1.8.0 [Java SE 8]" as well as each version of Android from "API level between

14   1 ('Base') and 13 ('Honeycomb_MR2')" and "Levels 14 ("Ice Cream Sandwich") to 23 (the most

15   current). ECF 1560-10 (Kemerer Op. Rpt.) ¶¶ 96-99. Thus, for both Java SE and Android, the

16   total number of packages considered would exceed the package count in any particular version of

17   either platform because the analysis considered packages *from all versions* of both platforms over

18   time. In light of the description in Dr. Kemerer's report, it is misleading for Google to claim that

19   Dr. Kemerer's testimony lacks foundation.

20   Second, Google's claim that Mr. Chatterjee did not know how Dr. Kemerer selected the

21   packages to include in the analysis is irrelevant and misleading because Dr. Kemerer instructed

22   him to include *all* of the packages from the JDK:

23   Q. So who decided to take these particular 248 APIs?

24   A. It comes from the JDKs that you download from the Oracle website. And so Professor
         Kemerer told me to do that, and so it comes from there.

25   Q. Okay. Who made the decision to use all 248 in this script?

26   A. [Dr. Kemerer] made the decision. I mean, he said capture all the packages that are coming
         from the JDK.

27   ….

28   Q: Okay. So your testimony is Dr. Kemerer told you, take all the packages from the JDK,

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1   and that ended up being 248, right?

2   A. From the publicly-available – yeah – source code.

3   Ex. A(Chatterjee Dep.) 212:15-213:10; 222:1-224:24 (same re Android packages). Neither Dr.

4   Kemerer nor Mr. Chatterjee was concerned with the number of API packages considered—they

5   wanted to consider *all* of them.[2]

6   Google next tries to manufacture an inconsistency regarding Dr. Kemerer's selection, with

7   his research assistants, of data collection tools. ECF 1770 at 6. This argument is based only on

8   misleading citations to Dr. Kemerer's and Mr. Chatterjee's testimony regarding completely sepa-

9   rate issues. Google first cites Dr. Kemerer's testimony regarding how he worked with his team to

10   select Understand, NetworkX, and PageRank—tools used for the *centrality analysis.* Ex. B (Ke-

11   merer Dep.) 93:22-94:1; ECF 1560-10 (Kemerer Op. Rpt.) ¶¶ 149-152. Then, to create the illu-

12   sion of an inconsistency, Google cites Mr. Chatterjee's testimony regarding whether he surveyed

13   tools "capable of measuring API changes"—an issue relevant to Dr. Kemerer's *stability* analy-

14   sis—and he responded that he didn't recall looking for such tools (indeed, he had written scripts

15   to collect this information). 1770-2 (Chatterjee Dep.) 287:13-288:12. In other words, Google

16   conflates completely distinct conversations about selecting tools for two different analyses—

17   centrality and stability—to unfairly create the illusion of an inconsistency where none exists.

18   There is likewise no merit to Google's criticism that Mr. Chatterjee collected method dec-

19   larations from the Java SE packages using Oracle's Javadoc tool, but collected the Android meth-

20   od declarations from Google's own pre-prepared documentation, which were listed in .txt and

21   .xml files within each Android version's source code. *See* ECF 1770 at 4-5; ECF 1560-10 (Ke-

22   merer Op. Rpt.) ¶ 99 (describing .txt and .xml files used). First, because use of both data-

23   collection tools was disclosed in Dr. Kemerer's opening report, Google should not be permitted to

24   raise this argument for the first time in a sur reply, particularly when Google's expert did address

25

26   [2] As explained in Oracle's prior opposition brief, at his deposition Dr. Kemerer could not recall
     the precise details of how he and his team had assembled the initial API listings. ECF 1609 at 9.

27   These were stated in his written report and his failure to recall every detail in his report is not a
     basis for exclusion. *See Network Prot. Sciences, LLC v. Fortinet, Inc.*, No. C 12-01106 WHA,

28   2013 WL 5402089, at *5 (N.D. Cal. Sept. 26, 2013)

1   this objection. Second, Google inexplicably would have preferred Mr. Chatterjee to try to use an

2   Oracle tool designed for the Java platform to collect information on *Android* source code, rather

3   than the more direct source of Android method declarations offered by Google. *See* ECF 1770 at

4   5. If Mr. Chatterjee had tried to use Javadoc to collect data from Android, Google undoubtedly

5   would have criticized his use of an Oracle tool designed for Java to collect data from Android.

6   *See, e.g.*, 4/13/16 Hr'g Tr. (Google) 106:1-2 ("The platforms are not compatible").

7   Nor does it matter *how* the method declarations were collected for purposes of Dr. Kemer-

8   er's stability analysis.[3] The Android method declarations were taken from files prepared by

9   Google, placed by Google in the Android source code repository, and used by Android to pass its

10   own signature test when it is being compiled. As Mr. Chatterjee explained at his deposition, Dr.

11   Kemerer "asked me to look at the source file, the Android source file" to collect the method dec-

12   larations from all the versions of Android. Ex A (Chatterjee Dep.) 166:2-4. There Mr. Chatterjee

13   "found the current.txt or current.xml, [which] are sort of two files that are present in the source

14   code containing what I needed that [Dr. Kemerer] had asked me to pull for his analysis," *id.*

15   166:5-9, so Mr. Chatterjee showed the files to Dr. Kemerer "[a]nd [] asked him that – if this file is

16   okay for me to parse. And he said it was fine to use that," *id.* 166:9-12. Mr. Chatterjee also ex-

17   plained that the .txt and .xml files were reliable because they were used for the Android signature

18   test, "[s]o essentially, the method declarations that are present in current.txt and current.xml is the

19   one that's actually checked to make sure that everything … is matched with whatever you're try-

20   ing to build in Android," *id.* 249:10-24, i.e., Android will not compile if the current.txt or cur-

21   rent.xml files do not match the method declarations contained within each Android API package,

22   so the files must be accurate. Google's experts never disputed this data collection process and

23   Google does not dispute any part of Mr. Chatterjee's description. *See* ECF 1770 5.

24   There was no need for Mr. Chatterjee to give "Dr. Kemerer a second option" for collect-

25   ing the Android method declarations. ECF 1770 at 5. Dr. Kemerer asked Mr. Chatterjee to ex-

26

27   ───────────────

     [3] Google implies other data collection tools may have reached the same or similar result, but
     whether alternative tools exist does not undermine reliability. Nor did Google's experts take is-

28   sue with the selected data collection tool.

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1   amine the Android source code and find a resource to generate method declarations from all ver-

2   sions of Android. Mr. Chatterjee collected the method declarations from Google's lists, which

3   were available in the source code repository.

4   Google's remaining critiques, based on Google's misguided new argument that Mr. Chat-

5   terjee (*not* Dr. Kemerer) should have done the analysis, go strictly to weight. First, Google com-

6   plains that Mr. Chatterjee did not design the counting methodology, and accordingly could not

7   answer questions about its design. ECF 1770 at 6. Google argues, for example, that Mr. Chatter-

8   jee should have been able to explain how the methodology took backward compatibility into ac-

9   count. *Id.* But as Mr. Chatterjee explained at his deposition, he could not answer Google's ques-

10   tion without knowing what Google's "definition of backward compatibility is in this particular

11   context," and he "would have to go back and see if the data actually contained those – the con-

12   tours that are defined in that particular definition of backward compatibility[.]" Ex. A (Chatterjee

13   Dep.) 59:8-17. The implicit question, however, is whether and how the methodology should ac-

14   count for backward compatibility, which Google discussed at length with Dr. Kemerer—the per-

15   son who *designed* the methodology. Ex. B (Kemerer Dep.) 132:22-135:6 (Dr. Kemerer explain-

16   ing concepts of backward compatibility in his stability analysis and the economic tradeoffs in-

17   volved with maintaining backward compatibility); *id.* 149:24-151:7 (discussing backward com-

18   patibility). It is sandbagging for Google to ask Dr. Kemerer—the person who actually designed

19   the methodology—about backward compatibility in the stability analysis, disregard his answer,

20   and try to exclude the entire study in a sur-reply by criticizing Mr. Chatterjee (who did not design

21   the analysis, but simply collected the data) for not extensively discussing backward compatibility.

22   Google tries a similar switch in positions with respect to what sort of changes are likely to

23   impact app developers. Dr. Kemerer—the person who designed the study—has an entire section

24   of his report devoted to how API stability impacts a platform's popularity with app developers.

25   ECF 1560-10 (Kemerer Op. Rpt.) ¶¶ 61-125. Dr. Kemerer's analysis is based on the data collect-

26   ed by Mr. Chatterjee, and also Google's own statements about the importance of API stability, as

27   well as actual market data. *Id.* Because Mr. Chatterjee only collected data, and did not design the

28   study, he would have no reason to think about the impact stability has on app developers. ECF

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1770-2 (Chatterjee Dep.) 60:24-61:2. But Dr. Kemerer's analysis-design decisions were dis-

cussed extensively at his deposition, and he answered this exact question:

> Q. And my question is whether or not the technical support team you used, or yourself did, any sort of testing sort of quality assurance to make sure that study wasn't roping in changes that aren't really changes that would affect code running like breaking of code, which is the concern you described that relates to the subject of stability? …
>
> A. No …. But one thing I would point out with all this discussion about how things are counted, at the end of the day, what I can always come back to is this: At the end of the day, the results are about the comparison of two sets, and what gives me confidence in this analysis is that I know that the same rules were applied to both sets, and therefore, you know, in terms of possibilities of different ways of measuring things, unless I believe that there was some reason that that would bias the results in one way or another, I'm less concerned about that …. And I'm just pointing out that, in all of these cases, the measures used are going to be applied equally to A and B.

Ex. B (Kemerer Dep.) 171:3-172:18. Also, what counted as a "change" for purposes of Dr. Kemerer's analysis was fully described in his reports and Google should have raised this criticism in its opening brief, but did not mention it at all. ECF 1560-10 (Kemerer Op. Rpt.) ¶ 200.

B.   Google does not Contest the Centrality Analysis Data Collection

Dr. Kemerer's centrality analysis is based on the use of three commercially available tools: Understand, NetworkX, and the PageRank algorithm (created by Google's Larry Page and implemented in NetworkX). ECF 1560-10 (Kemerer Op. Rpt.) ¶¶ 149-152. Dr. Kemerer's reports included all of the information necessary for Google's experts to replicate Dr. Kemerer's centrality analyses, a fact that Google does not contest in its brief. *See* ECF 1770 at 3. Indeed, Dr. Astrachan, Google's technical expert, examined Understand and concluded:

> There was nothing that I, in talking with counsel, thought would be useful in my reports in replying that was based on running Understand. Running Understand was something to do to comprehend the scope of what might be possible. And after running it, and seeing the results, it became clear to me, in discussing with counsel, there was nothing that we needed to do to respond to, in terms of that.

Ex. C (Astrachan Dep.) 97:9-17. Google's motion points out that intermediate Python scripts used by Mr. Chatterjee were overlooked in the initial production of materials associated with Dr. Kemerer's report, but identifies no error in the scripts, or any claim that the results of Dr. Kemerer's centrality analysis were flawed. ECF 1770 at 3. Nor does Google claim that it was unable to replicate the analysis (or that it tried to do so). The scripts themselves, as explained by Mr. Chat-

1   terjee in his deposition, are one way to automate input of data into Understand, instead of manual-

2   ly and repeatedly using the user interface included with the program. ECF 1770-2 (Chatterjee

3   Dep.) 137:23-138:1 ("There's multiple ways of doing it. You can use your – it has a good user

4   interface, as well. People can run it that way. I used this way to access Understand."); *id.* 141:9-

5   13 (same regarding NetworkX, based on the NetworkX documentation). In other words, these

6   additional scripts automated the operation of Understand and NetworkX, so that using them was

7   less of a manual process. They were produced before Mr. Chatterjee's deposition in an abun-

8   dance of caution. The fact that Dr. Astrachan was able to run Understand to determine what, if

9   anything, he needed to say in reply to Oracle's expert reports proves the point—the items dis-

10   cussed in Google's brief do not implicate methodology.

11   Google and its experts have never claimed that the data Dr. Kemerer used in his centrality

12   analysis are inaccurate. *See, e.g.*, 1563-6 (Astrachan Reply Rpt.) ¶¶ 60-67. Google raises only

13   two criticisms of the analysis, which go to weight. First, Google suggests that the centrality anal-

14   ysis should have included all aspects of the Android platform, not just those portions written in

15   Java. ECF 1770 at 6. But this methodological choice was disclosed in Dr. Kemerer's opening

16   report, ECF 1560-10 ¶ 150. Google's expert never took issue with this approach, and neither did

17   Google in its opening brief. Second, Google incorrectly contends that Dr. Kemerer did not select

18   the schema under which the Understand program was run. ECF 1770 at 6. Dr. Kemerer ex-

19   plained at length what weights were appropriate to use in the Understand program, and why the

20   default of no weighting was well-supported in the research literature. Ex. B (Kemerer Dep.)

21   99:14-105-2. And Mr. Chatterjee testified that Dr. Kemerer selected Understand's recommended

22   schema. Ex. A (Chatterjee Dep.) 152:22-154:14. Mr. Chatterjee provided the schema to Dr. Ke-

23   merer along with Understand's documentation, and after several day's consideration, Dr. Kemer-

24   er selected the schema. *Id.* 156:4-8 ("I gave [Dr. Kemerer] the schema …. And he decided. He

25   said, Let's go with the schema that Understand provides."). Contrary to Google's argument, Dr.

26   Kemerer supervised Mr. Chatterjee, and Mr. Chatterjee followed Dr. Kemerer's instructions.

27   **II.   CONCLUSION**

28   For the reasons stated here and in Oracle's opposition, Google's motion should be denied.

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Dated: May 3, 2016   Orrick, Herrington & Sutcliffe LLP

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3   By: */s/ Gabriel M. Ramsey*

4   Gabriel M. Ramsey
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